

Republic of Kenya

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KS 133 (2012) (English): Woven Bags Made from
Natural Fibres for Milled Products –
Specification (Draft Standard)



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KENYA STANDARD

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Woven Bags Made from Natural Fibres for Milled Products — Specification

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Second Edition 2012

TECHNICAL COMMITTEE REPRESENTATION

The following organizations were represented on the Technical Committee:

Africa Polysack Ltd.
Allpack Industries Ltd.
Flexpac International
Kenya Industrial Research and Development Institute (KIRDI)
Kenya Sisal Board
Moi University
National Cereals & Produce Board
Polysack
Premier Bag and Cordage Ltd.
Rai Plywoods (Kenya) Ltd.
Red Plum Enterprises
Teita Estate
Kenya Textile Training Institute
Coffee Board
Raffia Bags
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Kenya Tea Development Association
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REVISION OF KENYA STANDARDS

In order to keep abreast of progress in industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

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Woven Bags Made from Natural Fibres for Milled Products — Specification

KENYA BUREAU OF STANDARDS (KEBS)

Head Office: P.O. Box 54974, Nairobi-00200, Tel.: (+254 020) 605490, 602350, Fax: (+254 020) 604031
E-Mail: info@kebs.org, Web: <http://www.kebs.org>

Coast Region

P.O. Box 99376, Mombasa-80100
Tel.: (+254 041) 229563, 230939/40
Fax: (+254 041) 229448

Lake Region

P.O. Box 2949, Kisumu-40100
Tel.: (+254 057) 23549, 22396
Fax: (+254 057) 21814

Rift Valley Region

P.O. Box 2138, Nakuru-20100
Tel.: (+254 051) 210553, 210555

Foreword

The third edition of this Kenya Standard was prepared by the Technical Committee on Hard Fibres and Related Products under the guidance of Standards Projects Committee and in accordance with the procedures of the Bureau.

Sacks made from woven natural fibre yarns are commonly used for packing and storage of milled products for both human and animal consumption. This Kenya Standard specifies the minimum requirements for woven bags made from natural fibres, to perform to the expected satisfaction of its purpose.

In the second edition of this Kenya standard the following changes were made:

- (i) Introduction of the requirements for 50 kg-load capacity sacks.
- (ii) The lowering of the breaking force for both warp and weft directions in conformity with the internationally recognized strip (5 cm x 20 cm) method of test.

In the third edition of this standard the format has been changed to be in harmony with current Bureau editorial practices

In the preparation of the third edition of this Kenya Standard, the committee was guided mainly by data and information obtained from the local industry.

Acknowledgement is hereby made for the assistance received from these sources.

Woven Bags Made from Natural Fibres for Milled Products –Specification (Third Edition)

1 Scope

This First Revision of this Kenya Standard specifies the sacking and making-up requirements for woven bags made from natural fibres for packing and storage of milled products.

2 Normative references

The following standards are indispensable in the application of this standard:

KS ISO 3801: Method for determination of mass per unit length and mass per unit area of woven or knitted fabrics.

KS 132: Specification for woven bags made from natural fibres for cereals and pulses.

KS 1037 Methods of test for woven bags.

KS 1286: Method for determination of added oil content of sisal or jute yarn or fabric

KS 32: Conditions for testing textiles

KS ISO 3801 Textiles-Woven Fabrics, Measurement of mass per unit length and mass per unit area

3 Definitions

For the purposes of this standard, the following definitions shall apply:

3.1

natural fibre

jute, kenaf or sisal fibre

3.2

jute

fibre obtained from the bast layer of the plants *corchorus capsularis* and *corchorus olitorius*

3.3

kenaf

fibre obtained from the bast layer of the plant *Hibiscus cannabinus*

3.4

sisal

pale clean hard fibre obtained from the leaf of sisal plant (*agave sisalana perrine*)

3.5

ends

yarns running along the length of and parallel to the direction of manufacture

3.6

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picks

yarns running across the width of and 'perpendicular' to the direction of manufacture

3.7

sacking

coarse fabric made from natural fibres (see 2.1.1)

3.8

joined bag

a bag made out of two equal separate pieces of sacking

3.9

bale

a rectangular pressed rigid package containing woven bags made from natural fibres and covered with protective wrappings which are stitched and/or securely bound

3.10

contract – mass (bale)

the mass as obtained by multiplying the nominal mass of a bag by specified number of bags in that bale

3.11

lot

all bales containing woven bags made from natural fibres purporting to be of specified dimensions and quality and definite number of bags delivered to one purchaser against one dispatch note

3.12

moisture regain (bag)

the mass of moisture in a bag expressed as a percentage of the oven dry mass of the bag under standard textile-testing conditions (see KS 08-32)

4 Requirements

4.1 Sacking

4.1.1 Construction and Properties

The sacking shall be woven from natural fibre yarns and shall comply with the requirements in Table 1.

TABLE 1. SACKING CONSTRUCTION AND PROPERTIES

CHARACTERISTIC	REQUIREMENT	METHOD OF TEST
Mass per unit area, g/m ² , min.	650	KS ISO 3801
Warp (ends) per 10 cm, min.	34	KS 08-1037, Clause 10
Weft (shots) per 10 cm min.	56 (i.e. 28 x 2)	KS 08-1037, Clause 10

Sacking breaking force, N, min.	Warp	800	KS 08-1037, Clause 11
	Weft	1 000	KS 08-1037, Clause 11
Added oil content, max.		5%	KS 08-1286
Moisture regain, max.		10%	KS 08-1037, Clause 13

4.1.2 Freedom from Defects

The sacking, when visually examined, shall be free from weaving defects such as holes, tears, floats, crushed selvages, spots and stains.

4.2 Making-up

4.2.1 Stitching Thread

The stitching thread shall be of natural fibres including cotton or man-made fibres.

4.2.2 Stitch Density

The minimum number of stitches per 10 cm shall be 12. This shall be determined in accordance with 4.2.3.

4.2.3 Determination of Stitch Density

Count the number of stitches over a length of 10 cm on each side seam, and bottom seam (if any) of each bag. Space the measurements so that both sides are adequately assessed. Calculate the mean reading and report the mean for each bag.

4.2.4 Hemming

Where selvages do not form the mouth hems, the raw edges of the sacking at the mouth of the bag shall first be returned over to a depth of at least 1.5 cm, then to a depth of at least 1.60 cm and the three layers of the sacking thus formed shall be firmly stitched.

4.3 Seam Strength

The minimum breaking force of seam shall be 800 Newtons. This shall be determined in accordance with KS 08-1037, Clause 15.

4.4 Inside Dimensions and Mass Per Bag

The minimum inside dimensions of the bag and the mass per bag shall be as specified in Table 2.

TABLE 2. DIMENSIONS AND MASS PER BAG

Bag Capacity, Kg	Inside width, cm	Inside length, cm	Mass per Bag, g
50	50	76	580
90	68	112	1050
Method of Test	KS 08-1037, Clause 9.2	KS 08-1037, Clause 9.2	KS 08-1037, Clause 8

4.5 Identification of the Bag

For purposes of identification, there shall be a minimum of two bands of coloured threads woven into the sacking of each bag. Each band shall have a minimum of two threads. The colours used shall be clearly visible.

5. Packing

The bags shall be packed in bales of agreed quantity. The bales shall be wrapped or covered with suitable materials and securely bound or stitched to prevent damage or contamination.

6. Marking

The following information shall be clearly marked on each bale:

- (a) Manufacturer's name or registered trade mark;
- (b) Description of goods;
- (c) Quantity of pieces;
- (d) Lot number;
- (e) Gross mass of the bale;
- (f) Dimensions of bag; and
- (g) The declaration 'Made in Kenya' (or country of origin).